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Daniel Litt* (dlitt@math.columbia.edu). *Automorphisms of blowups and the dynamical Mordell-Lang conjecture.*

We use p -adic analytic methods to analyze automorphisms of smooth projective varieties. We prove a version of the dynamical Mordell-Lang conjecture for arbitrary subschemes of a variety. We apply this result (1) to classify automorphisms $\phi : X \rightarrow X$ such that there is a divisor D in X whose intersections with its iterates are not dense in D , and (2) to show that various properties of $\text{Aut}(X)$ (for example, finiteness of its component group) are not altered by blowups in high codimension. This is joint work with John Lesieutre. (Received February 10, 2016)